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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,287	08/05/2003	Timothy W. Crockett	RPS9-2002-0138US1	7985
45219	7590	09/12/2006	EXAMINER	
KUNZLER & ASSOCIATES 8 EAST BROADWAY SUITE 600 SALT LAKE CITY, UT 84111			NGUYEN, JIMMY H	
		ART UNIT	PAPER NUMBER	
		2629		

DATE MAILED: 09/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/634,287	CROCKETT ET AL.
	Examiner	Art Unit
	Jimmy H. Nguyen	2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 30 June 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-13 and 15-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-13 and 15-25 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 30 June 2006 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

1. This Office Action is made in response to applicant's amendment filed on 06/30/2006.

Claims 1-13 and 15-25 are currently pending in the application. An action follows below:

Claim Objections

2. Claim 18 is objected to under 37 CFR 1.75(a) because although this claim meets the requirement 112/2d, i.e., the metes and bounds are determinable, however, "further comprising" in line 2 must be changed to -- said method further comprises --, so as to clarify the claimed invention.

It is in the best interest of the patent community that applicant, in his/her normal review and/or rewriting of the claims, to take into consideration these editorial situations and make changes as necessary.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 9 and 16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding to these claims, the disclosure, when filed, does not fairly convey to one of ordinary skill in the art that applicants had in their possession the claimed limitations, "the

functionality of the filtering module is only provided by electrical hardware" of claim 9 and "blocking further comprises blocking using only hardware" of claim 16. There is nowhere in the original disclosure to disclose that the functionality of the filtering module, which includes a rules table (see independent claims 1 and 12), is only provided by electrical hardware, as presently recited in these claims. The disclosure, specifically page 10, last paragraph, discloses:

"Modules may also be implemented in hardware as electronic circuits comprising custom VLSI circuitry, off-the-shelf semiconductors such as logic chips, transistors, or other discrete components. A module may also be implemented in programmable hardware devices such as field programmable gate arrays, programmable array logic, programmable logic devices or the like."

However, the modules implemented by only hardware do not contain a rule table.

Accordingly, the original disclosure does not contain such description and details regarding to the above underlined features of claims 9 and 16.

5. Claims 9 and 16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As to these claims, these claims contain the limitations, "the functionality of the filtering module is only provided by electrical hardware" of claim 9 and "blocking further comprises blocking using only hardware" of claim 16, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention because these claims, when read together with their independent claims 1 and 12, recite a filtering module, which **includes a rules table** (see independent claims 1 and 12), being only provided by electrical hardware. Note that any

computerized apparatus (device or system), which includes a (look-up) table stored in a memory, must comprise software(s) executed by a processor (or a microprocessor), in order to communicate (i.e., read data out) with the table stored in the memory.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-7, 10-13, 15, 17 and 19-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Misuhiro (JP 04-151711). See the attached English translation of this document for the following rejection.

As per claims above, the claimed invention reads on Misuhiro as follows: Misuhiro discloses a system and associate method, the system (see Fig. 1) comprising a **keyboard** (a keyboard comprising elements 1, 21 and 22, see pages 3-4 of the English translation); a **key code filter** (a combination of elements 2-5 all shown in Fig. 1, see pages 3-4); and a **host computer** (a computer body 6, see Fig. 1 and page 4). As noting in Fig. 1, Misuhiro discloses a keycode filter (2-5) comprising an **input port** for receiving a stream of key codes transmitted from the keyboard (see fig. 1 and the description, page 4, lines 8-11, disclosing scan converting means 2, via connection wire, receiving a stream of scan codes, corresponding to key-depression, from the scanner means 1), a **filtering module** (a module including elements 2-4, see fig. 1) operably connected with the input port, storing a rules table (a code converting table 3, see Fig. 1), and configured to block only key codes and combinations of key codes selected in accordance with

the rules table (3) (see page 4, lines 11-22, of the English translation); and **an output port** (an interface means 5, see Fig. 1, page 4, lines 21-22, of the English translation) connected to the filter (2-4), for receiving the key code data and transmitting the received key code data to the host computer (6). Mitsuhiro further teaches the filter module (2-4) comprising a processor or microcontroller (lock controlling means 4, Fig. 1, page 4, lines 14-20, of the English translation) and a memory including a code converting table (3) which includes a rule table to be used for specifying whether a key code is to be blocked or transmitted (see the description from page 4, line 14 through page 5, line 7, disclosing that if the obtained key code from the code converting table 3 includes a code to indicate the lock switch on, the obtained key code is blocked and if the obtained key code from the code converting table 3 includes a code to indicate the lock switch off, the obtained key code from the table 3 is transmitted to the computer). Furthermore, the key codes (scan codes) inherently correspond to keys that are pressed and release key codes inherently corresponds to keys that are released, and wherein each key on the keyboard is characterized by a unique make key code and a unique release key code, in order to recognize the key input from a user. Accordingly, the limitations in these claims are read in the Mitsuhiro reference.

8. Claims 1-13 and 15-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Bromley et al. (US 4,908,612), hereinafter Bromley.

As per claims above, the claimed invention reads on Bromley as follows: Bromley discloses a system and associate method, the system (see Fig. 1) comprising **a keyboard** (a keyboard 15, Fig. 1, col. 5, line 39); **a key code filter** (an interactive intelligent I/O device 19 with a cartridge 26, see Fig. 1, col. 5, line 49); and **a host computer** (a personal computer 11,

see Fig. 1, col. 5, line 35). As noting in Fig. 3, Bromley discloses a key code filter (19, 26) comprising **an input port** (an interface circuit 85, see Fig. 3) for receiving a stream of key codes transmitted from the keyboard (see col. 8, lines 23-26, col. 10, lines 6-8), a **filtering module** (a module including all elements shown in Fig. 3 except interfaces 83 and 85) operably connected with the input port (85), storing a rules table (look-up tables stored in RAM 65 or ROM 67, see col. 8, lines 1-2, col. 17, lines 16-22, col. 19, lines 42-47), and configured to block only key codes and combinations of key codes selected in accordance with the rules table (see col. 4, lines 39-43 and col. 17, lines 16-22); and **an output port** (a host interface 83, see Fig. 3, col. 8, lines 23-26) connected to the key code filter, for receiving the key code data and transmitting the received key code data to the host computer (11) (see col. 4, lines 39-43 and col. 17, lines 16-22). Bromley further teaches the filter module comprising a processor or microcontroller (a CPU 65 and a microprocessor 81, see Fig. 3) and a memory (a ROM 67 or a RAM 65, see Fig. 3) which includes a rule table (look-up tables, see col. 8, lines 1-2, col. 17, lines 16-22, col. 19, lines 42-47) to be used for specifying whether a key code is to be blocked or transmitted. Furthermore, the key codes (scan codes) inherently correspond to keys that are pressed and release key codes inherently corresponds to keys that are released, and wherein each key on the keyboard is characterized by a unique make key code and a unique release key code, in order to recognize the key input from a user. Bromley, moreover, teaches the microcontroller (65, 81) configured to operate using power received from the host computer (see col. 7, lines 23-27). Furthermore, Bromley discloses that the look-up tables can be changed by reprogramming a memory device (see col. 17, lines 16-39). Accordingly, the limitations in these claims are read in the Bromley reference.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitsuhiro.

As to claim 8, as discussed in the rejection above, Mitsuhiro discloses all the limitations of claim 8 except that Mitsuhiro does not expressly teach the microcontroller configured to operate using power received from the host computer. However, Official Notice is taken that both the concept and the advantages of providing a power of the host computer to a peripheral device (i.e., a peripheral device connected and using the power of the host computer), such as a keyboard, a mouse, or input devices, are well-known and expected in the art. It would have been obvious to have the filter (i.e., including the micro controller of the filter) using the power of the host computer of Mitsuhiro because this would reduce the cost of an extra power source and reduce the power consumption since the filter only needs to activate when the host computer is used.

As to claim 18, as discussed in the rejection above, Mitsuhiro discloses all the limitations of claim 18 including a memory device for storing the rules table (3), except that Mitsuhiro does not expressly teach the memory device to be reprogrammed to alter the rules. However, Official Notice is taken that both the concept and the advantages of using a reprogrammable memory device, such as an EEPROM, to alter the data contained in the memory device are well-known and expected in the art. It would have been obvious to replace the memory device of Mitsuhiro,

with a known reprogrammable memory device, such as an EEPROM, because this would allow a user (or a manufacturer) to alter the data contained in the reprogrammable memory device (in the instant case, to alter the rules table), thereby reducing the cost of the apparatus.

Response to Arguments

11. Applicant's arguments, see pages 13-18 of the amendment, filed 06/30/2006, with respect to the objections to drawings, specification, and claims and rejections under 35 USC 112, first and second paragraphs, in the Office Action dated 03/30/2006, have been fully considered and are persuasive in light of the amendments to claims and the cancellation of claims 26-30. These objections and rejections of the Office Action dated 03/30/2006 have been withdrawn.

12. Applicant's arguments see pages 18-19 of the amendment, filed 06/30/2006, with respect to the rejections under 35 USC 102(b) and 103(a), in the Office Action dated 03/30/2006, have been fully considered but they are not persuasive. Applicants argue that all amended independent claims recite the limitations "block only key codes and combinations of key codes of the stream of **key codes selected in accordance with the rules table**", while the Mitsuhiro reference teaches blocking **all key codes in accordance with the state of the lock switch**. Examiner agrees that the Mitsuhiro reference teaches blocking all key codes in accordance with the state of the lock switch. However, Mitsuhiro, also teaches "The code converting means 2 finds **a key code ... from the code converting table 3...** and outputs the obtained code to the lock controlling means 4" (see page 4, lines 11-13), i.e., **the obtained key codes are from the code converting table 3**. Moreover, Mitsuhiro teaches "If the obtained key codes is the one that indicates the off state, the lock controlling means 4 discards all the key codes...." (see page 4,

lines 17-20). Based on the mentioned disclosure, Examiner believes that Mitsuhiro discloses blocking key codes selected in accordance with the rules table.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is 571-272-7675. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached at 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JHN
September 7, 2006



Jimmy H. Nguyen
Primary Examiner
Technology Division: 2629

Title: KEY CODE FILTER APPARATUS AND METHOD

Inventors: Crockett et al.

Docket No.: 1300.2.16 / RPS9-2002-0138 (JBS)

Replacement Sheet

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Approved by
JHN
9/6/06

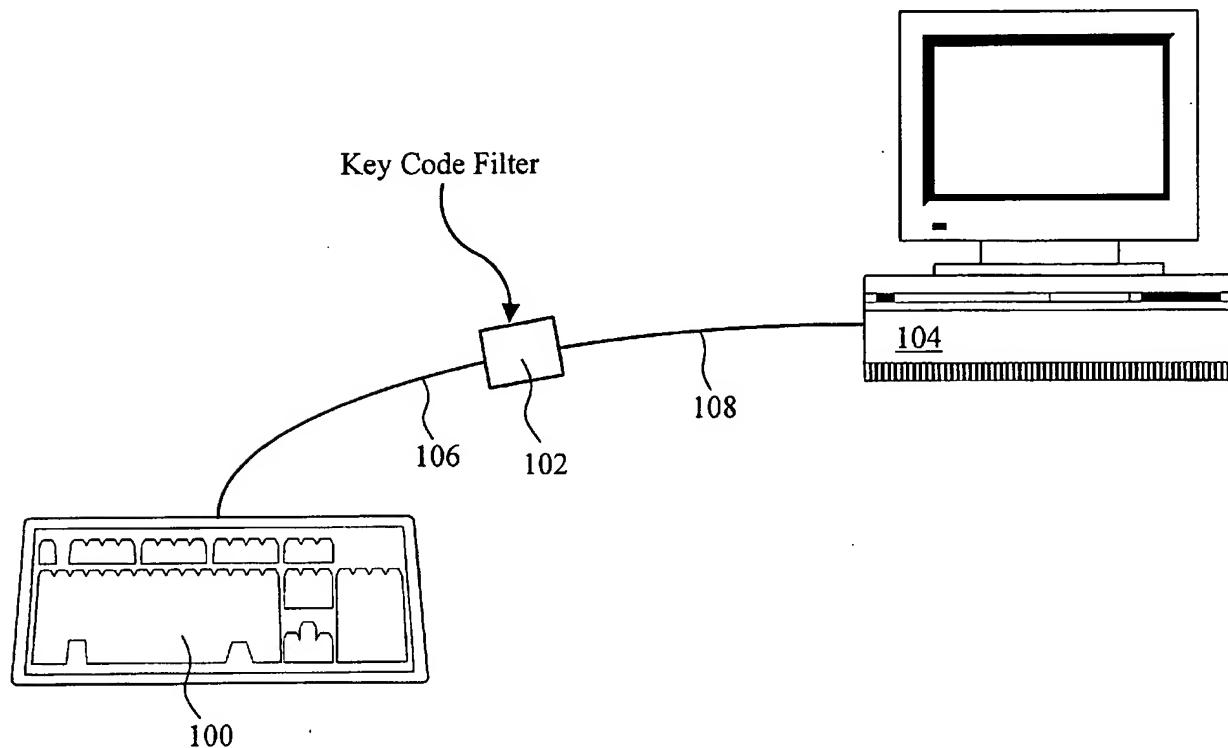


Fig. 1A

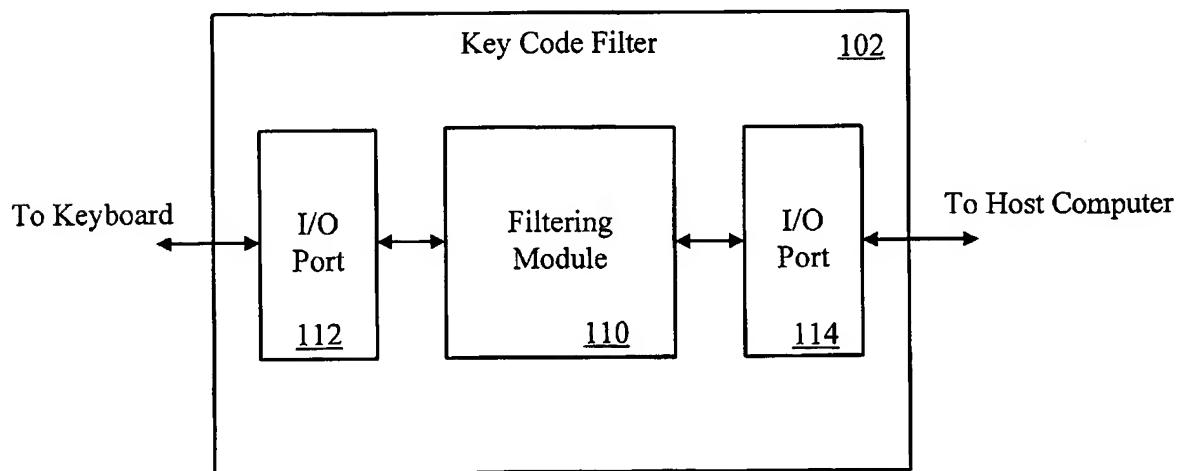


Fig. 1B

Title: KEY CODE FILTER APPARATUS AND METHOD

Inventors: Crockett et al.

Docket No.: 1300.2.16 / RPS9-2002-0138 (JBS)

Replacement Sheet

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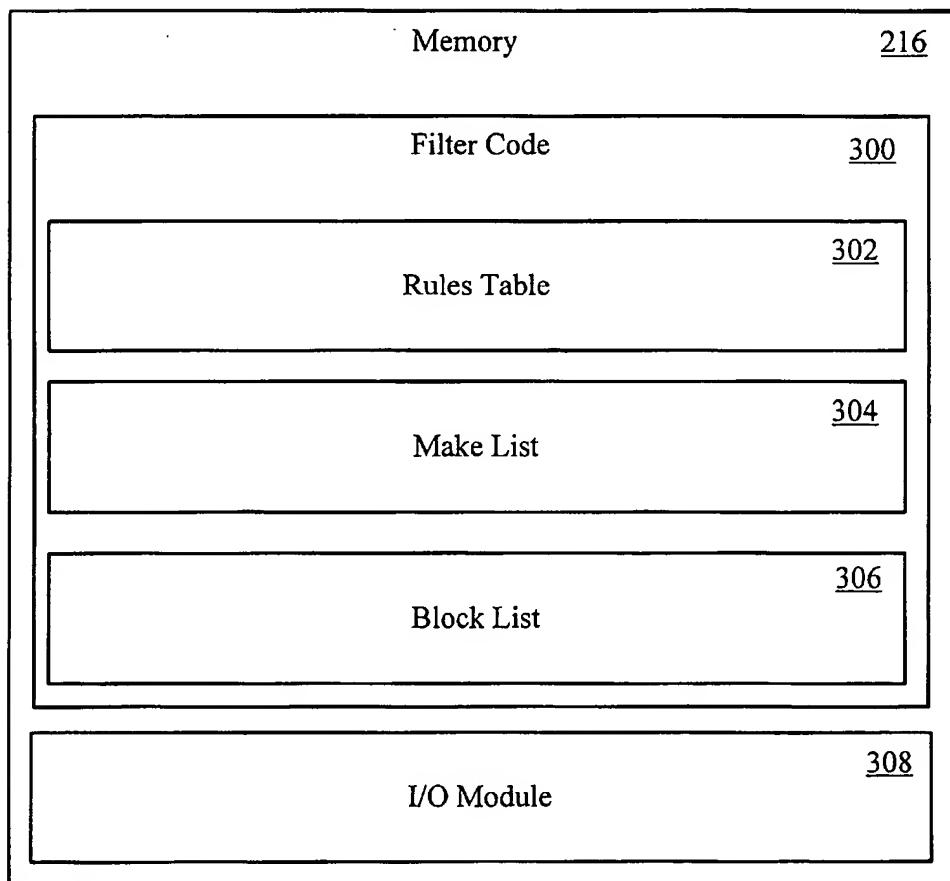


Fig. 3